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REMARKS

Claims 1-57 are currently pending in the subject application and are presently under consideration. Claims 1, 10, 15, 21-23, 32, 38, 43, 45, 48-50 and 54-57 have been amended herein to further emphasize novel aspects of the subject invention. A version of the claims can be found at pages 2-12 of this Reply.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Objection of Claims 55-57 Under 37 C.F.R. § 1.75(c)

Claims 55-57 are objected to under 37 C.F.R. § 1.75(c) as being of improper dependent form. Withdrawal of this objection is respectfully requested in view of the herein amendments to these claims.

II. Notification of 35 U.S.C. § 112, Sixth Paragraph

The Examiner has made a notification of 35 U.S.C. § 112, Sixth Paragraph, requesting that the Applicants invoke 35 U.S.C. § 112, Sixth Paragraph regarding independent claim 37. Applicants have invoked 35 U.S.C. § 112, Sixth Paragraph, by complying with the statutory requirements set forth in accordance with the holdings of the CAFC.

Although "means-plus-function" language of patent statute is not triggered only if word "means" is used in claim, use of term "means" has become closely associated with "means-plus-function" claims, and *use of term "means" generally invokes that section of statute*, while use of different formulation generally does not. *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1584 (Fed.Cir.1996)

Applicants' representative reminds the Examiner that the use of the term "means" and in particular the phrase "means for" invokes 35 U.S.C. § 112, paragraph six. Moreover, contrary to the Examiner's indication at page 3 of the Office Action (dated September 20, 2005) there is no statutory requirement that applicants identify "the exact

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limitations that the Applicants are reading into the claims from the specification.”

Accordingly, this notification is moot.

III. Rejection of Claims 37-53 Under 35 U.S.C. § 101

Claims 37-53 stand rejected to under 35 U.S.C. § 101. Withdrawal of this rejection is respectfully requested for at least the following reasons. The subject claims produce a useful, concrete and tangible result. Moreover, 35 U.S.C. § 101 does not require that “machines”, “systems” or components of “machines” or “systems” be structural or physical components. Additionally, there is currently no judicially recognized separate “technological arts” test to determine patent eligible subject matter under § 101.

Independent Claims 38 and 43

Title 35, section 101, explains that an invention includes “any new and useful process, machine, manufacture or composition of matter.”... Without question, *software code alone qualifies as an invention eligible for patenting under these categories. Eolas Techs., Inc. v. Microsoft Corp.*, 399 F.3d 1325, 1338-39 (Fed. Cir. 2005) (holding that 35 U.S.C. §101 did not limit “machines” or components of “machines” to *structural* or *physical* components. Rather, every component, including software components, of every form of invention deserves the protection of §271(f) because it is patentable subject matter under 35 U.S.C. §101) (emphasis added).

The Examiner incorrectly states at pages 3-4 of the Office Action that a software component is non-statutory subject matter because a software component does not recite anything physical to constitute a “system”. Pursuant to *Eolas Techs.*, 35 U.S.C. § 101 makes no requirement that a “system” is limited to something ‘physical’. Rather, software code alone (even without physical structure) qualifies as an invention eligible for patenting and can be a component of a system. Accordingly this rejection of independent claims 38 and 43, as well as the associated dependent claims, should be withdrawn.

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Independent Claims 45 and 48-50

Claims 45 and 48-50 have been amended to recite a "computer" network in order to appease the Examiner. However, in *ex parte Lundgren*, a recent precedential opinion handed down by the Board of Patent Appeals and Interferences, this court has eliminating the Patent Office procedure of rejecting patents under 35 U.S.C. § 101 as outside of the "technological arts". (See <http://www.uspto.gov/web/offices/dcom/bpai/prec/2003-2088.pdf>).

Our determination is that there is currently *no judicially recognized separate "technological arts" test to determine patent eligible subject matter under § 101*. We decline to create one. Therefore, it is apparent that the examiner's rejection can not be sustained. See *ex parte Lundgren* at page 7.

Accordingly, this rejection of independent claims 45 and 48-50, as well as all claims that depend there from, should be withdrawn.

IV. Rejection of Claims 37-44 Under 35 U.S.C. §112, second paragraph

Claims 37-44 stand rejected under 35 U.S.C. §112, second paragraph as being indefinite. Withdrawal of this rejection is respectfully requested for at least the following reasons. The subject claims particularly point out and distinctly claim the subject matter which the applicants regard as the invention. In particular, the subject claims recite a "system" in which the specification portion of the disclosure describes in full, clear, concise, and exact terms. One skilled in the art will readily ascertain a manner in which the claimed system can be used. At page 6 of the Office Action, the Examiner indicates that this rejection is based upon the 35 U.S.C. § 101 rejection above. The Examiner's rationale is that since a software component cannot be a "system" or a component of a "system", the claimed system is indefinite. As stated *supra*, contrary to the Examiner's assertions, a system need not contain physical structure. Rather, a system claim can be

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comprised of software components. Accordingly, it is readily apparent that the claims are not indefinite, and this rejection of claims 37-44 should be withdrawn.

V. Rejection of Claims 1-9, 12, 15, 16, 21-23, 25-27, 32, 33, 35, 37 and 54 Under 35 U.S.C. §103(a)

Claims 1-9, 12, 15, 16, 21-23, 25-27, 32, 33, 35, 37 and 54 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Bennett in view of Dialog. Withdrawal of this rejection is respectfully requested for at least the following reasons. Bennett and Dialog, either alone or in combination, do not teach or suggest all of the features set forth in the subject claims. Moreover, there is no motivation to combine Dialog with Bennett in the manner the Examiner suggests and/or doing so does not result in teaching all the claimed features.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) *must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art and not based on the Applicants' disclosure. See In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).*

Applicants' claimed invention relates to a system and method for managing welding consumables. More specifically, the invention discloses a system comprising distinct components, each with explicit structural interrelationships with other components: 1) a welder, 2) a consumable(s) monitor, and 3) a remote system. For example, the welder is structurally interrelated with a consumable(s) monitor because the welder *comprises* a consumable(s) monitor. Similarly, the welder is structurally interrelated with the remote system because the remote system *interfaces* with the welder

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via a computer network. (See FIG. 1, items 110, 115, 120, 170) In particular, independent claim 1 (and similarly independent claims 21 and 54) recites, “a welder *comprising* a consumable(s) monitor”. Independent claim 1 (and similarly independent claims 21, 37, and 54) recites, “a remote system that *interfaces to the welder via* a computer network”. The cited references alone or when combined fail to teach or suggest such claimed aspects of the subject invention.

Bennett discloses two embodiments of hardware and software for use with the same portable microcomputer, a first phase device and a second phase device (*i.e.*, the “Parameter Box”). The first phase device stores a series of parameters (see pg. 343, ll. 11-15), but does not teach or suggest that it monitors these parameters or that it monitors consumables. Rather, the first phase device calculates costing information utilizing data entirely provided *via* the keyboard (*i.e.*, based entirely upon user inputted values of the selected parameters). (See pg. 342, ll. 42-45; pg. 343, ll. 15-16). In essence, the first phase device is nothing more than a calculator programmed with an algorithm to output costing information based entirely upon user input from the keyboard of the given parameters. These parameters are not monitored by the device, but instead the final values are input *via* the keyboard. Accordingly, it is readily apparent that the first phase device does not teach or suggest all the claim features, and need not be discussed further.

Bennett also discloses a second phase device that is the next generation of the first phase device. The “Parameter Box” (*i.e.*, the second phase device) is similar to the first phase device in that it is designed to be interfaced to and software compatible with the same host computer (of the portable microcomputer that can house either phase of the device). (See pg. 344, ll. 9-11). Another similarity between the first phase device and the “Parameter Box” is that virtually all parameters are supplied *via* the keyboard. (See pg. 344, ll. 13-20). However, unlike the first phase device, the “Parameter Box” can be used to monitor the weld process semi-automatically. (See pg. 342, ll. 45-47). In particular, the “Parameter Box” can monitor a single welding consumable, which is the amount of wire consumed (see pg. 343, ll. 40-44), but all others must be input by a user *via* the keyboard.

Accordingly, Bennett teaches a “Parameter Box” that can monitor a welding consumable. However, the “Parameter Box” is not a component of a welder, but instead

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a portable microcomputer that is attached to the welding equipment. (See pg. 343, ln. 45). Therefore, Bennett does not teach or suggest "a welder *comprising* a consumable(s) monitor". Merely attaching a "Parameter Box" to welding equipment is not sufficient to read on the claims.

In addition, Bennett is silent with respect to some of the aforementioned components, and silent with respect to the structural interrelationships between the claimed components. The Examiner tacitly ignores this shortcoming by citing a single component in Bennett to represent multiple distinct components of the subject claims, even though by doing so, the Examiner has destroyed the claimed structural interrelationship between the distinct components. For example, at page 7 of the Office Action, the Examiner contends that the portable microcomputer is both the consumable(s) monitor of "a welder comprising a consumable(s) monitor" and the "remote system that interfaces to the welder *via* a computer network". It is readily apparent that the Examiner has departed from the structural relationships recited in the subject claims in order to make this rejection.

Moreover, the Examiner has impermissibly employed hindsight analysis in order to locate a reference that discloses "a remote system that interfaces to the welder *via a computer network*". As conceded at page 8 of the Office Action, Bennett does not disclose these features, yet the Examiner attempts to reference Dialog to make up for this deficiency. Dialog discloses employing the Internet to monitor the quality of welds, whereas Bennett is directed toward costing analysis and does not disclose, teach or suggest the ability or the necessary equipment to monitor the quality of welds. The motivation to combine these references supplied at page 8 of the Office action is "to remotely monitor the status of a weld". However, since Bennett is incapable of monitoring the quality of welds, there is no motivation to combine it with a reference that teaches employing the Internet to do so. Making Bennett Internet enabled does not create the ability to monitor the quality of welds.

For at least the foregoing reasons, the Examiner has failed to make a *prima facie* case of obviousness. Bennett fails to teach or suggest the structural interrelationships recited in the subject claims and Dialog does not remedy these deficiencies. Moreover, Bennett and Dialog are not properly combinable at least because the Examiner has not

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supplied proper motivation to combine the references. Accordingly, this rejection of independent claims 1, 21, 37 and 54, as well as all associated dependent claims, should be withdrawn.

VI. Rejection of Claims 10, 11, 17-19 and 36 Under 35 U.S.C. §103(a)

Claims 10, 11, 17-19 and 36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Bennett in view of Dialog and further in view of Tarr, *et al.* (US 5,184,179). Withdrawal of this rejection is respectfully requested for at least the following reasons. Bennett, Dialog, and Tarr, *et al.*, either alone or in combination, do not teach or suggest all of the features set forth in the subject claims.

As detailed above, Bennett and Dialog fail to teach or suggest all the claimed features of independent claims 1 and 21 upon which the subject claims depend. Tarr, *et al.* does not make up for these deficiencies. Accordingly, this rejection should be withdrawn.

VII. Rejection of Claims 13, 14 and 34 Under 35 U.S.C. §103(a)

Claims 13, 14 and 34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Bennett in view of Dialog and further in view of Official Notice. Withdrawal of this rejection is respectfully requested for at least the following reasons. Bennett and Dialog, either alone or in combination, do not teach or suggest all of the features set forth in independent claims 1 and 21 upon which the subject claims depend. Official Notice does not remedy the shortcomings of the cited art and this rejection should be withdrawn.

At page 14 of the Office Action the Examiner takes Official Notice that it is old and well known in the art 1) to use HTML format to exchange information and, 2) to use a LAN connection to connect two or more devices. It is respectfully submitted that these Official Notices are not pertinent to the subject claims or to the Examiner's rejection. For example, stating that it is old and well known to use a LAN to connect two or more devices may in some cases teach a LAN, but it does not teach the two or more devices. The Examiner has indicated that Bennett's portable microcomputer is both of these devices, so taking these Official Notices are not relevant to support this rejection. It is

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not old and well known to employ HTML and a LAN for a device to communicate with itself.

VIII. Rejection of Claims 20 and 28-31 Under 35 U.S.C. §103(a)

Claims 20 and 28-31 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Bennett in view of Dialog and further in view of Sekizawa (US 6,681,349). Withdrawal of this rejection is respectfully requested for at least the following reasons. Bennett, Dialog, and Sekizawa either alone or in combination, do not teach or suggest all of the features set forth in the subject claims.

As detailed *supra*, Bennett and Dialog fail to teach or suggest all the claimed features of independent claims 1 and 21 upon which the subject claims depend. Sekizawa does not make up for these deficiencies. Accordingly, withdrawal of this rejection is respectfully requested.

IX. Rejection of Claim 24 Under 35 U.S.C. §103(a)

Claim 24 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Bennett in view of Dialog and further in view of Manchala, *et al.* (US 6,405,178). Withdrawal of this rejection is respectfully requested for at least the following reasons. Bennett, Dialog, and Manchala, *et al.*, either alone or in combination, do not teach or suggest all of the features set forth in the subject claims.

Bennett and Dialog fail to teach or suggest all the claimed features of independent claim 21 upon which claim 24 depends. Manchala, *et al.* does not make up for these deficiencies and this rejection should be withdrawn.

X. Rejection of Claims 38 and 40-42 Under 35 U.S.C. §103(a)

Claims 38 and 40-42 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Bennett in view of Dialog. It is requested that this rejection be withdrawn for at least the following reasons. Bennett and Dialog, either alone or when combined, do not teach or suggest all of the features set forth in the subject claims.

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Independent claim 38 recites, "*a consumable monitor component ... a customer component that interfaces the consumable monitor ... and a supplier component that receives information from the customer component*". As with many of the rejections above, the Examiner again argues at page 17 of the Office Action that Bennett discloses all the components recited in the subject claims, and any aspect not disclosed is deemed to be nonfunctional descriptive material. Once more the Examiner argues that the portable microcomputer of Bennett represents multiple components of the subject claim without regard to the recited structural interrelationships. Bennett teaches a single component capable of monitoring wire consumption. Accordingly, this rejection of independent claim 38 and dependent claims 40-42 should be withdrawn for at least the same reasons detailed regarding the rejection of independent claim 1.

XI. Rejection of Claims 39, 43, 45, 46, 48-53, and 55-57 Under 35 U.S.C. §103(a)

Claims 39, 43, 45, 46, 48-53 and 55-57 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Bennett in view of Manchala, *et al.* (US 6,405,178). Withdrawal of this rejection is respectfully requested for at least the following reasons. Bennett and Manchala, *et al.*, either alone or in combination, do not teach or suggest all of the features set forth in the subject claims. Moreover, there is no motivation to combine Manchala, *et al.* with Bennett in the manner the Examiner suggests because the combination would require substantial reconstruction and redesign requiring the use of hindsight to arrive at claimed subject matter.

Claim 39

Claim 39 depends from independent claim 38, which is believed to be allowable for at least the reasons discussed *supra*. Manchala, *et al.* does not make up for the aforementioned deficiencies of Bennett. Accordingly, the Examiner has failed to make a *prima facie* case for obviousness regarding this claim.

Independent claim 43

At page 21 of the Office Action, the Examiner argues that Bennett discloses 1) a consumable monitor, 2) an aggregation component...that receives welding information

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from the consumable monitor, and 3) a supplier component. However, Bennett discloses only a single component without the structural interrelationships recited in the claim language. For at least the reasons submitted with respect to independent claim 1, Bennett fails to teach or suggest all the claim features of independent claim 43.

Furthermore, the Examiner incorporates the teachings of Manchala, *et al.* to combine with Bennett five additional structural components of which Bennett does not teach or suggest the hardware or software capabilities to incorporate even if there were some reasonable motivation to do so. For example, Bennett teaches a battery operated portable microcomputer with sufficient CMOS RAM such that the software could be left resident in the machine (*see* pg. 343, ll. 7-8), which is about 16 kilobytes of CMOS RAM. (*See* pg. 344, ln. 31). Bennett does not teach or suggest more sophisticated types of RAM storage or hardware component necessary to employ the teachings of Manchala, *et al.* Thus, to incorporate the teachings of Manchala, *et al.* into Bennett would require substantial reconstruction or redesign of the storage capabilities of the portable microcomputer as well as the addition of five structural components the Examiner purports are taught in Manchala, *et al.*

Moreover, Manchala, *et al.* is directed toward an electronic commerce enabled purchasing system for a printer, whereas Bennett expressly teaches providing a hardcopy 40-column printout of costing results from welding equipment (*see* pg. 343, ll. 33-34) such that a welding engineer can present a clear case to the purchasing department with regard to the purchase of more expensive gas mixtures. (*See* pg. 341, ln. 38 – pg. 342, ln. 1). Hence, incorporating Manchala, *et al.* with Bennett would require substantial reconstruction and redesign as well as change the principle of operation of the reference being modified. Thus, the teachings of the references are not sufficient to render the claims *prima facie* obvious. (*See* MPEP § 2143.01(VI), “the suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate”). Accordingly, this rejection of independent claim 43 should be withdrawn.

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Claims 45, 46, 48-53 and 55-57

Claims 45, 46, 48-53 and 55-57 are believed to be allowable for at least the reasons discussed *supra*. Neither Bennett nor Manchala, *et al.* disclose, teach or suggest all the claim features of the subject claims. Accordingly, applicants' representative requests that the Examiner withdraw this rejection.

XII. Rejection of Claims 44 and 47 Under 35 U.S.C. §103(a)

Claims 44 and 47 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Bennett in view of Manchala, *et al.* (US 6,405,178) and further in view of Official Notice. Withdrawal of this rejection is respectfully requested for at least the following reasons. Bennett and Manchala, *et al.*, either alone or in combination, do not teach or suggest all of the features set forth in independent claims 43 and 44 upon which the subject claims depend. Official Notice does not remedy the shortcomings of the cited art and this rejection should be withdrawn. Accordingly, this rejection should be withdrawn.

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CONCLUSION

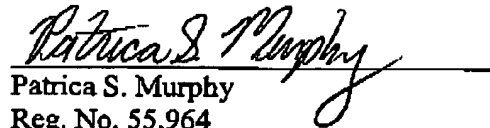
The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [LNCNP105US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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